ARIZONA ANTIQUE RADIO CLUB NEWS

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2000~2001

ARIZONA ANTIQUE RADIO CLUB NEWS

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Arizona Antique Radio Club
www.azarc.org

The Arizona Antique Radio Club was organized in 1983 for the preservation of the history and artifacts of radio and television, and for the advancement of knowledge and appreciation of radio technology and communication. The Club is a non-profit corporation organized primarily for the mutual assistance of radio devotees and collectors in Arizona. Membership, however, is open to any persons who have an interest in radio and television history, preservation, restoration, and collecting.

Meetings are held from October through May and consist of touring collections, presentations of technical, historical or restoration information, thematic displays of radios and the autobiographical experiences of the members. Our antique radio Swap Meets are scheduled for Spring and Fall meetings. Members of the Board of Directors are elected at the annual business meeting in May. Most meetings are held on Saturdays in the Phoenix and Tucson areas, and when possible, elsewhere within Arizona.

Membership dues are $18 (individual) or $20 (family) per calendar year and provide access to all club benefits including the quarterly issues of the *Radio Club News*. Send dues or membership inquiries to: **Arizona Antique Radio Club, 10513 E. Clinton, Scottsdale, AZ, 85259, phone (602) 860-8951.**

The Arizona Antique Radio Club News is the quarterly publication of the Arizona Antique Radio Club, Inc. It is mailed First Class to current members.

Contributions: submission of articles, news items, fiction, photographs and other materials relating to radio history and collecting are greatly appreciated, particularly if they have an Arizona connection. All members are encouraged to broaden their interest in the hobby by sharing their experiences, opinions, knowledge and observations with the club through its publication. Send materials for publication to **Arizona Antique Radio Club, 2025 E. LaJolla Dr., Tempe, Arizona, 85282-5910. Phone is 480-730-6058.** Email: **lettow@yahoo.com.**

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A.A.R.C. NEWS

CALENDAR

Saturday March 16, 8am
Spring Swap Meet
Antique Electronic Supply, Tempe

Our annual event at the usual time and place. You must be a member to sell at the meet. No setups before 8.

Saturday April 20, 1pm
April / Annual Business Meeting
Home of Dick Stout
9980 Willow Pt., Sun City

See Dick's collection and presentation on a technical topic. Also elections and business meeting.

Saturday May 11, 1 to 5 pm
Collection of Martin Bergan

The long awaited visit to one of the world's top collections of antique radios. More details to follow. ***You must be a current, paid-up member to attend this special meeting.***

Please check our website at azarc.org for more information on meetings including maps, people to contact, activities of related clubs and any late breaking changes.

MEMBERSHIP RENEWAL

With the start of the calendar year it's again time to renew your membership. This year try to find another person who would enjoy the club and get them to join up. Remember that membership dues form the bulk of our operating revenue. Only current members may sell at swap meets and receive the journal and meeting announcements.

You can also order a club name badge on this year's membership renewal form.

ELECTIONS

The club needs you if you have some time and would be willing to serve on the Board of Directors. There will be a few openings this year because the two-year terms of David Cain, George A. Fathauer, Larry Kenan, Dave Lambert, Con Morton and Carl Roberts are set to expire.

E-MAIL AGAIN

As you may have noticed, the club is currently struggling with timely communication of club activities to its members. A recent snafu caused half the club to miss notification of the Radio Roundup in February.

This has come about due to several factors, the main one being the erratic publication schedule of the *Radio Club News.*

We are trying to fix this with providing timely info on the website and with e-mail updates. When you renew your membership please remember to write your current e-mail address in the space provided. If your address has changed please notify Jeff Shields at jeffandkt@msn.com as soon as possible.

HOUSE OF BROADCASTING

This from Les Rayner: A museum dedicated to broadcsting, the House of Broadcasting, is now open in Scottsdale at 7150 E. Fifth Ave. It is open from 10am to 5pm and the phone number is 480-944-1997.

THE SUPREME RADIO ANALYZER

BY

CON MORTON

Radio Set Analyzers were popular pieces of test equipment during the late 20s and early to mid 30s. The basic idea of an analyzer is a box that has a cable that plugs into the radio set tube sockets using adaptors for various tube bases. The box has several tube sockets with breakout pins to bring out the filament, cathode, grid and plate voltages. One or more meters were usually mounted on the box to read the tube voltages and currents.

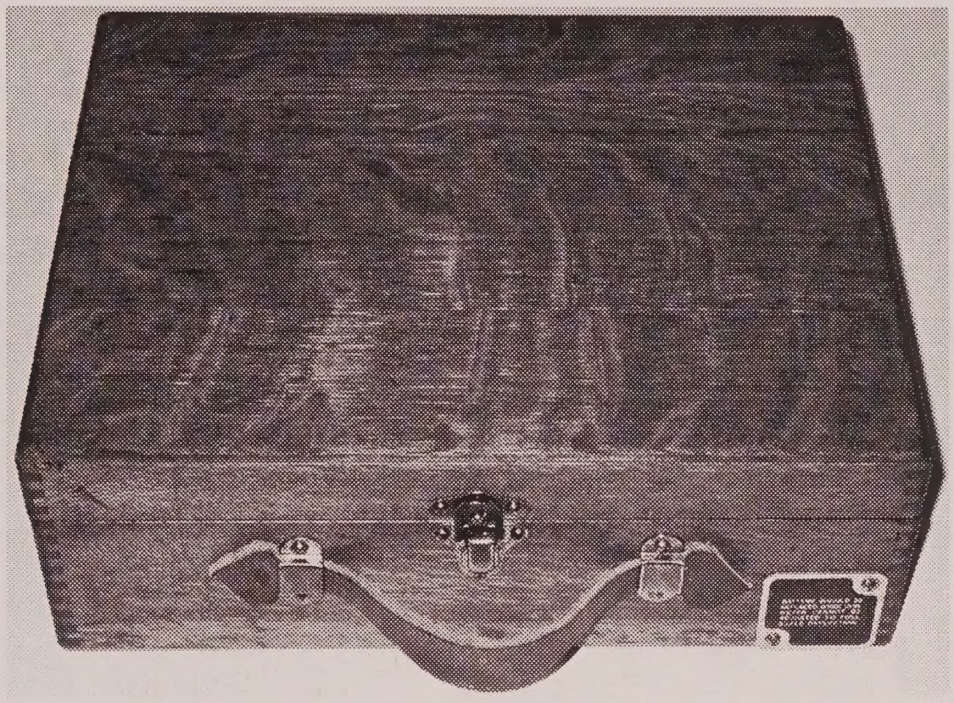
In operation one would remove the tube for the circuit being checked and plug the cable into the tube socket using the proper adaptor, then plug the tube into the proper socket on the analyzer. Turn the set on and after warm up read the various voltages and currents and compare them to the manufacturer's specs.

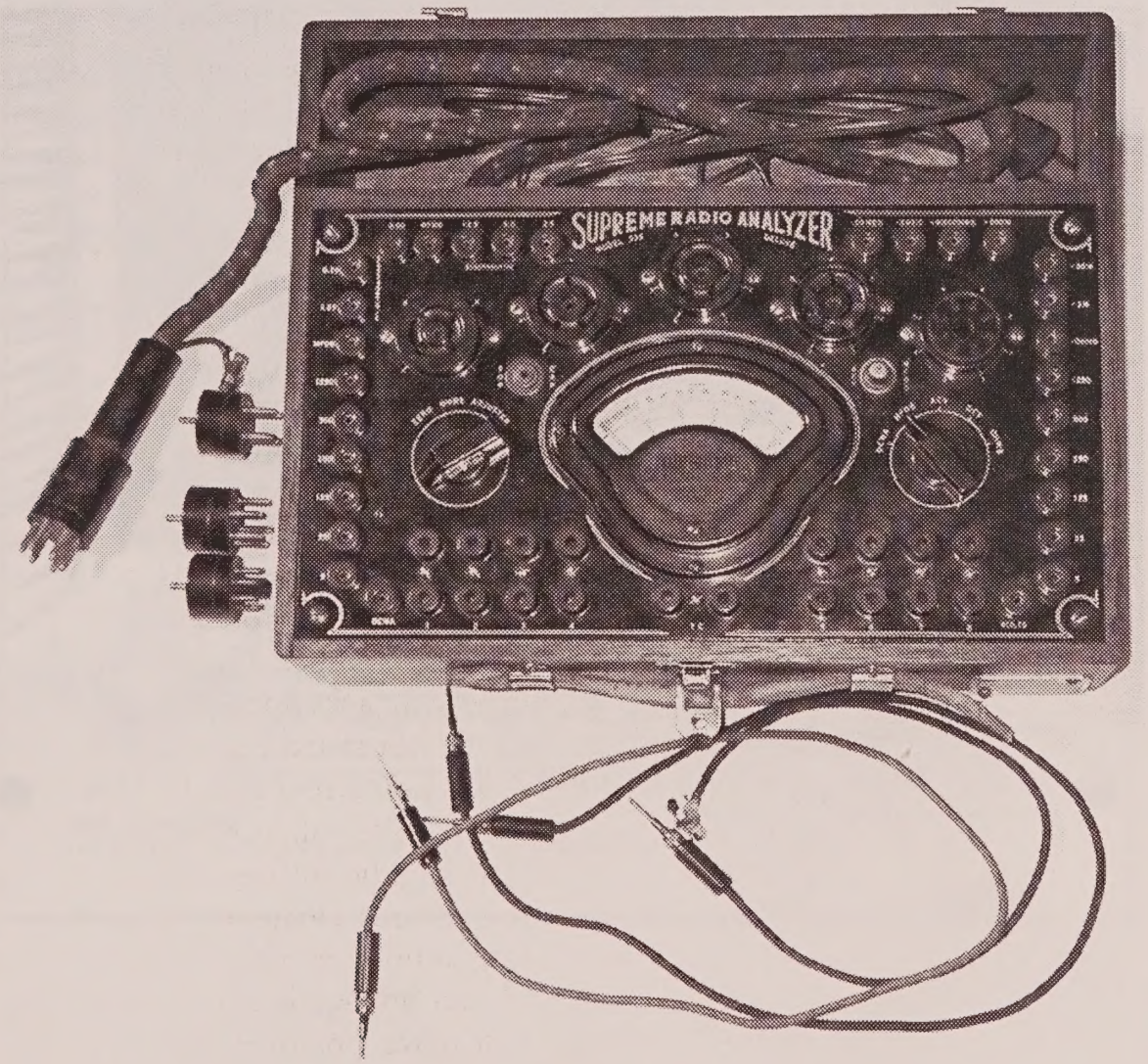
Tube testing was done by simply replacing the tube on the analyzer and determining that the voltages and currents were correct. If tube replacement did not cure the problem the standard trouble shooting procedures were used to correct the problem: no plate voltage for one stage could be an open plate load or an open power supply divider. A positive grid #1 could be a leaky coupling cap.

The more exotic analyzers of the 30s included capacitance checking, value and leakage for paper and electrolytics, a built in ohmmeter, AC and DC voltmeter and milliammeter functions. The Supreme Model 339D Deluxe Analyzer is an excellent example of the ultimate analyzer of 1935. The 339D has sockets for 4, 5, 6, 7 and 8 pin sockets, (the metal 8 pin tubes came out in 1935) and male test adaptors for the analyzer test cable. The analyzer cable is also fitted with a male top cap plug which the top cap connector on the radio may connect to for tubes using the top cap. A cable is provided to connect to the top cap input, (pin jack) of the analyzer and the top cap of the tube.

Each of the eight possible tube socket connections and the TC are routed through a pair of switched (normally closed) pin jacks. The switched jacks are arranged so that inserting a pin into either jack leaves the circuit intact but inserting pins into both jacks open the circuit. This allows hot switching of the milliammeter for current measurements.

Tube DC voltages are measured by inserting the voltmeter leads between the various elements, usually using the cathode as the reference point. Heater voltage is read using the AC voltmeter position. If voltage and or current errors still exist after tube

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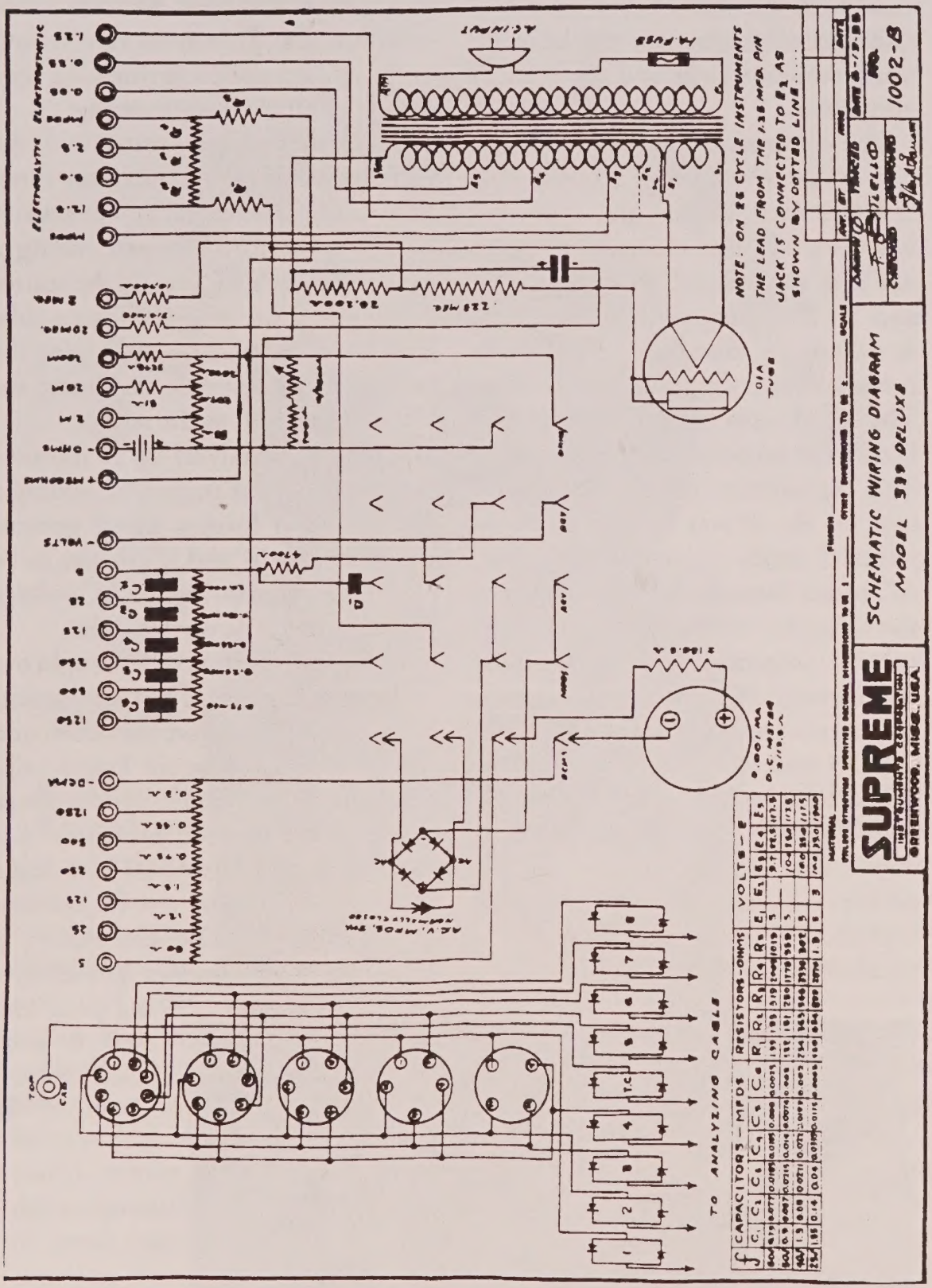
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MODEL 539 DELUXE
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THE LEAD FROM THE .138 MFD. P/N
JACK IS CONNECTED TO E1 AS
SHOWN BY DOTTED LINE.
TO ANALYZING CABLE
CAPACITORS - MFDS
RESISTORS - OHMS
VOLTS - E
D.C. MICRO AMPS
0-100 MA
D.C. MILLIAMPS
A.C. VOLTS
ELECTROSTATIC ELECTROMAGNETIC
OHMS
MEGOHMS
- VOLTS
- DCMA
M FUSE
ACTUATOR
6E6 TUBE

replacement, along with faulty operation, then the set is turned off and resistance measurements may be made using the same jacks and the built in ohmmeter.

The ohmmeter uses 3 C cells for power for the 2000, 20,000 and 200,000 ohm ranges, not good for low value 1/8 watt resistors but those old sets are robust!! For the 2Meg and 20 Meg ranges there is a built-in AC supply that uses a 01A triode connected as a diode for the rectifier. The supply also is used to supply 60 Hz for the capacitance meter circuits. The capacitance meter uses several taps on the power transformer and selected series resistances with the AC meter function connected across the resistance so that the capacitance value is proportional to the AC current through the capacitor. The accuracy seems good, a 0.1uf read 0.1 and a 0.033 read at 0.031.

It should be noted that a normally closed switch marked AC MFD is across the AC rectifier bridge for protection and must be depressed (opened) for capacitance or AC volts measurements. Also that the power transformer is the autotransformer type and precautions must be taken to insure that there is no return path to the AC line when performing tests using the 339D power supply.

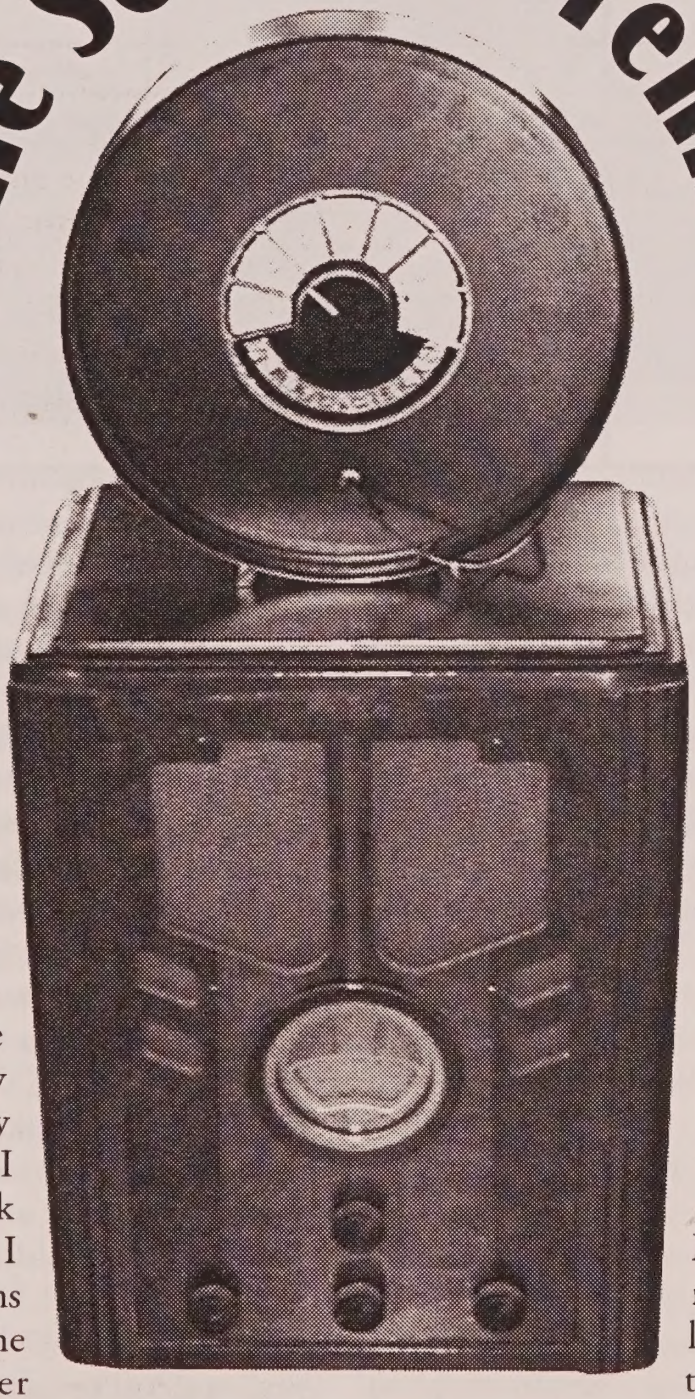
Capacitor leakage is tested with the voltmeter and or the ammeter functions using an external power source. The instructions include using a radio set power supply for the source by plugging the analyzer into a tube socket of a operating set, plugging the tube into the analyzer and using the plate connection as the source.

Setting the analyzer up to monitor the audio output stage and feeding a modulated rf from a signal generator allows the rf and if circuits to be peaked by monitoring the AC voltage at the plate of the output tube.

This appears to be a well thought out and versatile piece of test equipment that was very useful on the bench and small enough to use on house calls. The oak cabinet and layout/artwork of the panel resulted in a unit that was meant to be displayed with some amount of pride by the technicians of the mid 30s. The unit shown is complete except for one 7/6 analyzing plug and two 4 foot test probes.

How I Found Radio Bliss in a Plastic Disc

"The Select-A-Tenna"



by Dave Lambert

It all started when I got the "bright idea" that I would enjoy listening to one of the radios from my collection in my office at work. I listen to AM talk radio while I delete mountains of email and the raucous banter of my transistor radio was making an unpleasant task even worse. Perusing my collection I decided that the mellow tube sound of a Philco 38-89 tombstone would remedy the situation nicely. I cleaned the set up, made sure it was working properly, and lugged it into to work with high expectations.

My efforts were rewarded with lousy reception, high noise levels and an overall sound that made the transistor set sound a whole lot better! Not to be defeated I decided a better antenna would ameliorate the

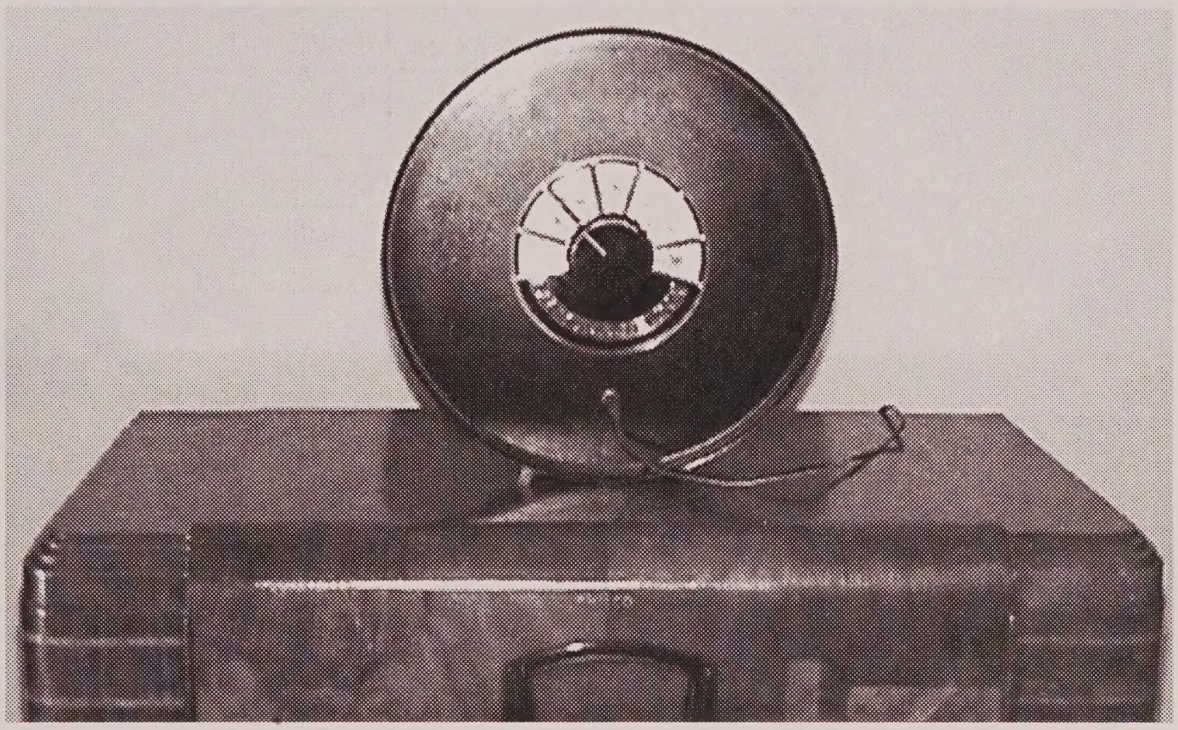
Radio	Year	Type	Connection	Result	Comments
RCA Radiola III	1924	Regen	Hardwire	Poor	Affects tuning range
Philco 38-89	1938	Superhet	Hardwire	Excellent	
Philco 37-60	1937	Superhet	Hardwire	Excellent	
Philco 511	1928	TRF	Hardwire	Excellent	Use chassis not ground post
Philco 20	1930	TRF	Hardwire	Excellent	
Hallicrafters SX62A	1958	Superhet	Hardwire	Excellent	
Atwater Kent 10	1923	TRF	Hardwire	Lousy	
Philco 37-116	1937	Superhet	Hardwire	Excellent	
Dynaco AF6 Tuner	1971	Superhet	Inductive	Null	No difference
Realistic TM101 Tuner	1984	Superhet	Inductive	Excellent	
Pioneer VSXD603 Rec.	1994	Superhet	Hardwire	Excellent	Replace supplied loop

situation. I ran a piece of wire out my window and up the side of the building. The net effect of this was an increase in noise levels and no better reception. The Philco was promptly relegated back to the status of dust collector and my dreams of a mellow tube sound at work were put on hold.

Several months later after answering the questions "What is it?" and "Does it play?" innumerable times I knew I had to act. After all, even though we radio collectors know we are nuts, it doesn't pay to advertise! These old wooden boxes are actually pretty nice sounding and there is nothing like letting the non-collector hear one to make a believer out of them. To this end I got on the Internet to see how others had solved a similar problem.

Typing "AM Antennas" into my browser I was pleasantly surprised to find several promising hits. The most productive of these turns out to have been the C. Crane Company Inc. (www.ccrane.com) of Fortuna, CA. C. Crane has a number of products aimed at the serious AM listener. Among them is the Select-A-Tenna line of AM antennas. From the website description these appeared to be a tunable loop which I thought might bring relief to my reception problems. I plopped down my $64.95 for the hardwire unit and anxiously waited to see if I had just purchased the latest "wonder antenna" or if I might actually be able to make the Philco play at work.

The unit that arrived is a sealed black plastic molding about 10.75" in diameter and 2.25" thick. It sits on two plastic feet (to keep it from rolling!) and its' centrally mounted tuning knob and dial scale give it an appearance reminiscent of early 60's Japanese electronics. The hardwire model I purchased sports an 1/8" phono jack



on the front for the connection to the radio. It can also be used as an inductively coupled device for radios with ferrite rod antennas and no provision for an external antenna.

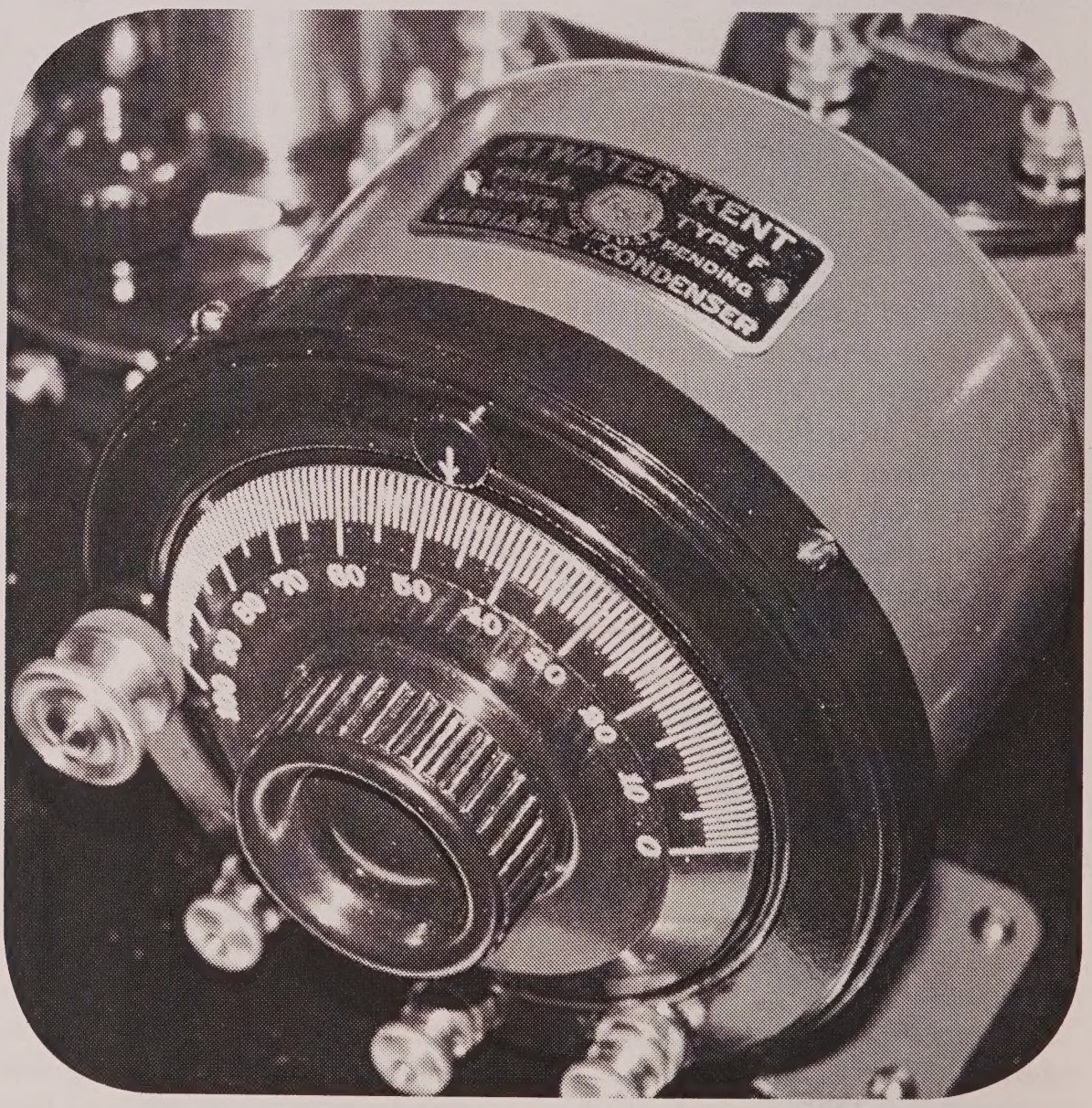
I sat the unit on top of the Philco tombstone and connected its' hard-wire across the antenna and ground lugs on the back of the set. Turning the set on and tuning it to spot on the dial where my favorite station should be I was greeted with silence. Slowly tuning the Select-A- Tenna to the same frequency brought the station in loud and clear! Optimizing the orientation of the antenna improved the reception even further. I was in business and the transistor set was unceremoniously retired to my junk drawer.

The Select-A-Tenna performed so well at work I decided to get another for use at home. Over the last several months I have tried it with a number of different radios. The table on page 10 summarizes my results.

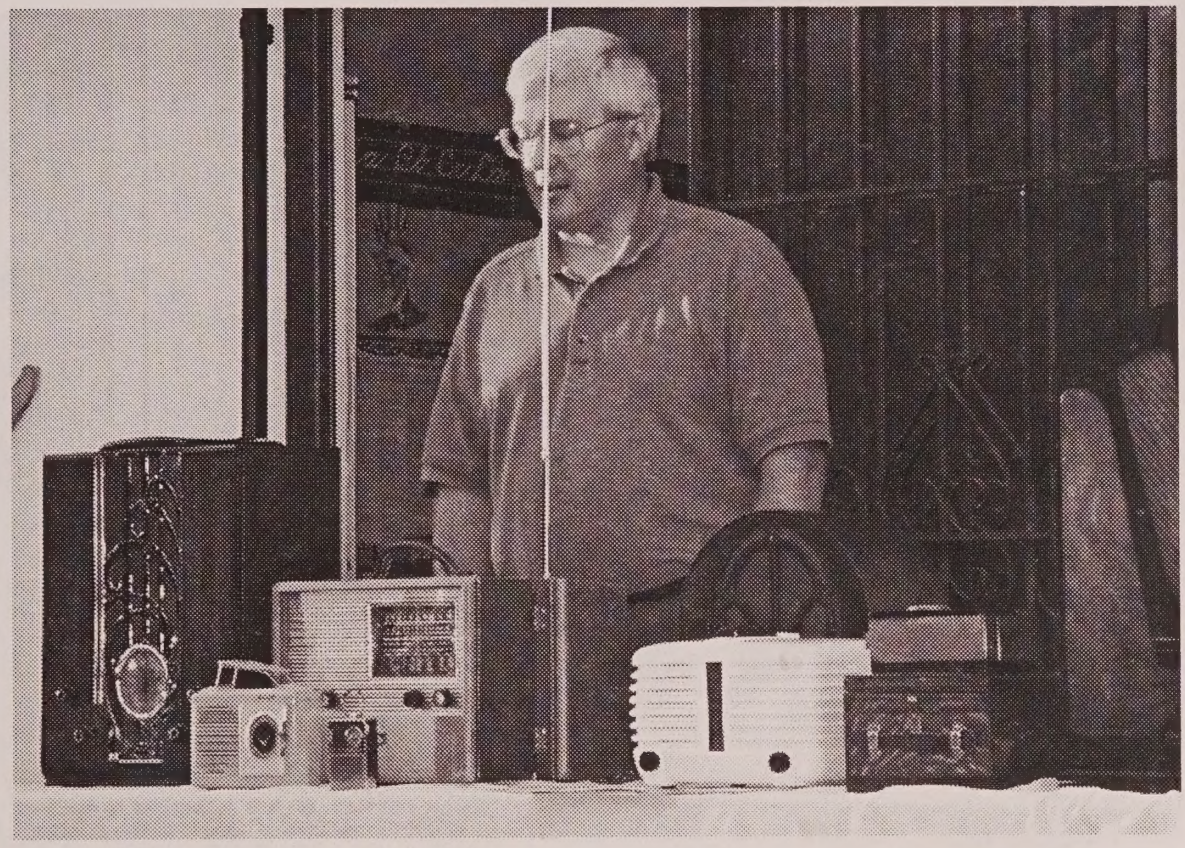
From this information you can get an idea of whether this antenna might work for you. If your interest is early battery sets I don't think this unit is what you're looking for. Stick with a nice long piece of wire and excellent earth ground! On the other hand if your sets fall into the late 1920s or later genre you might be well served with a Select-A-Tenna.

I do have several criticisms of this unit I will share in closing. The price seems a bit steep. I think the jack for the hard wire would be better located on the back of the unit. The lead supplied should be about twice as long (6 feet instead of 3 feet). Lastly, as you would expect the tuning is very sharp and a vernier or two rate tuning mechanism would be very useful for optimal performance. None of these is a showstopper and in conclusion I think this antenna is a handy accessory for those of us in the Antique Radio Hobby. You too might find "Radio Bliss in Plastic Disc".

AARC YEAR IN REVIEW 2000~2001

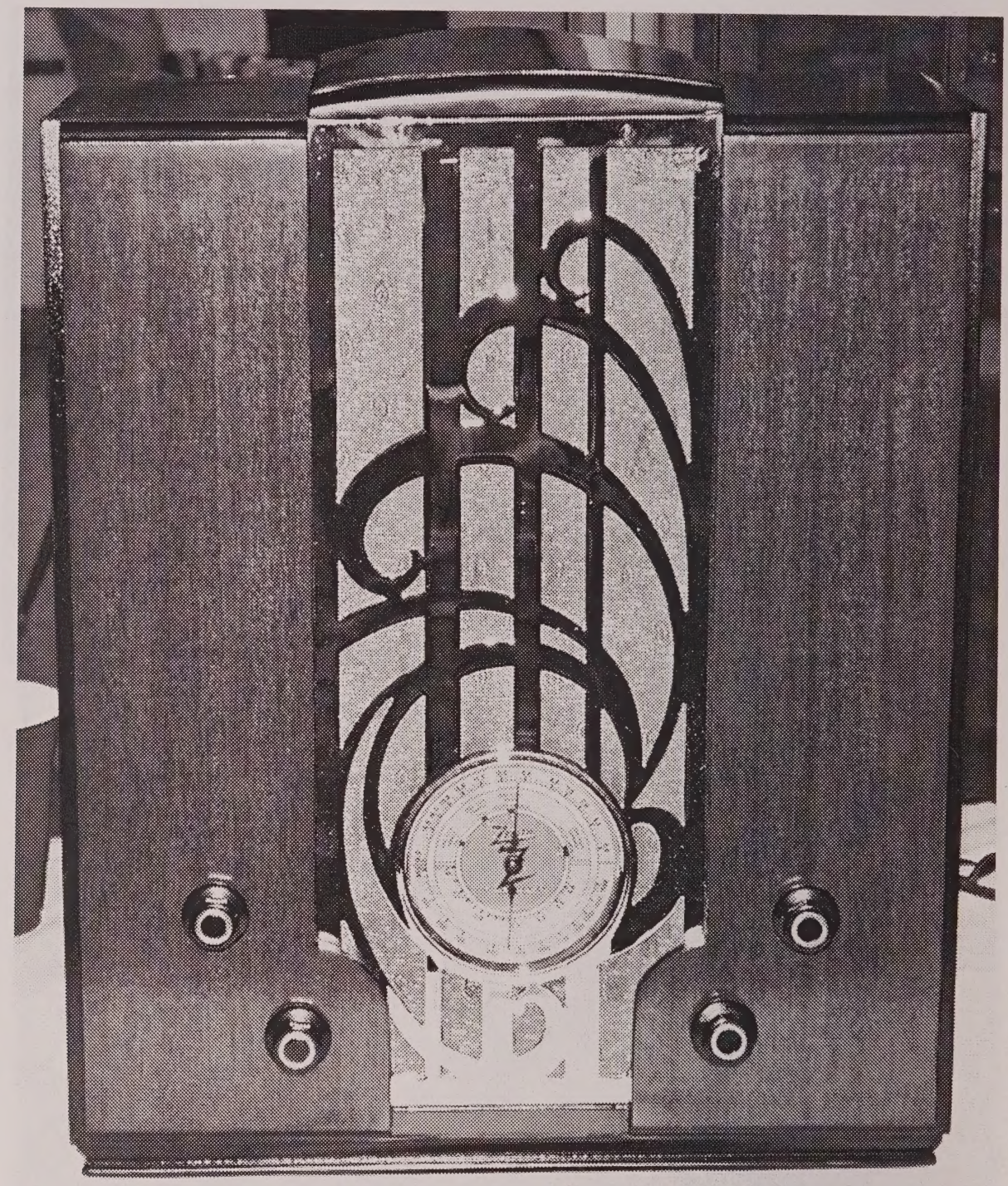


Our October 2000 meeting was a potluck dinner at the home of Cal Lidback in Mesa. We had a small Show and Tell of "radios that play well". Above is part of Jeff Thomas' Atwater-Kent superbly restored breadboard.



Then-new-member now-AARC-webmaster Jeff Shields shows off a few sets from his collection. That's an antenna dividing him in half.

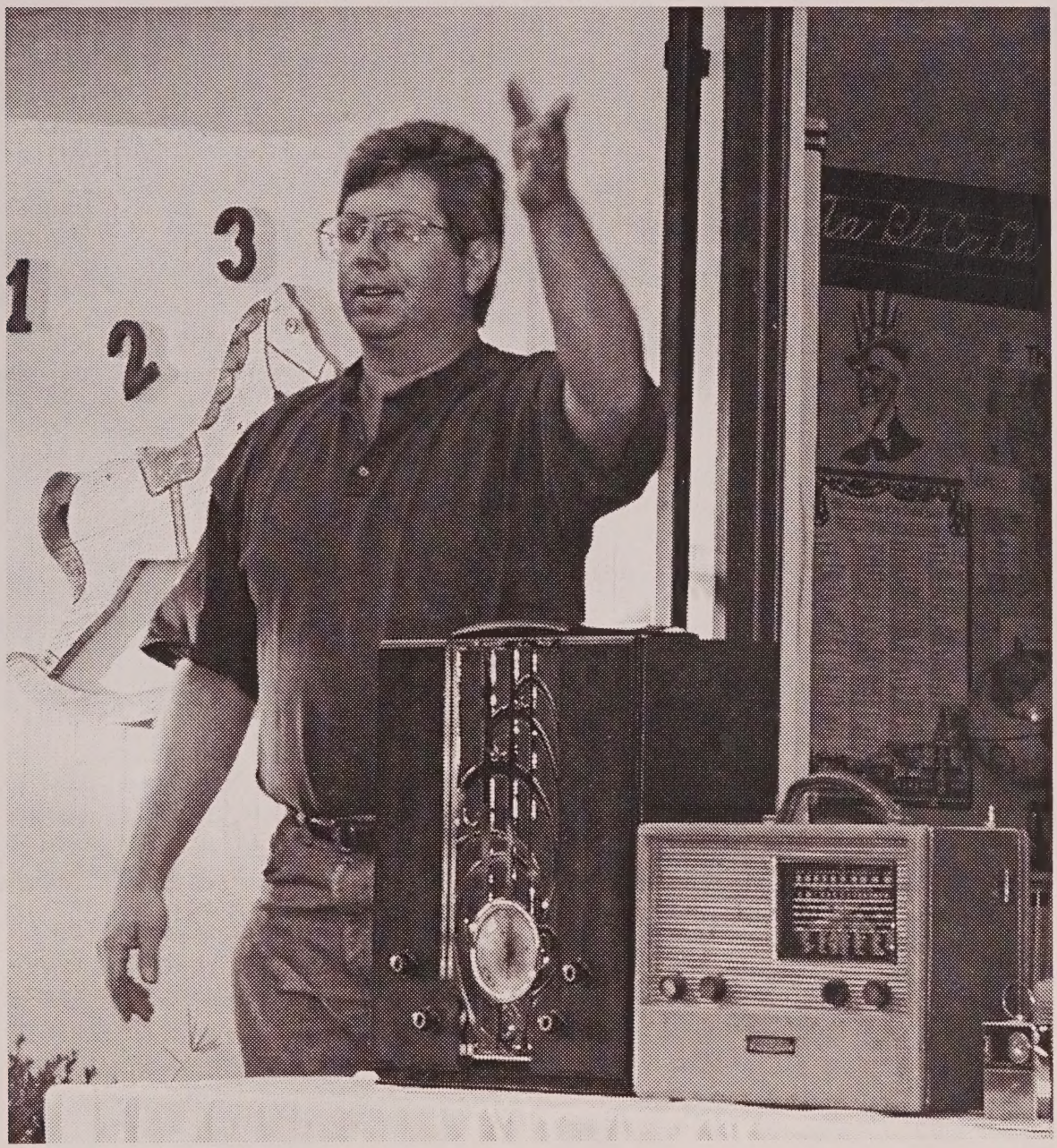
It took Pete Way, Rick Barton and Steve Strapach to figure out this console.



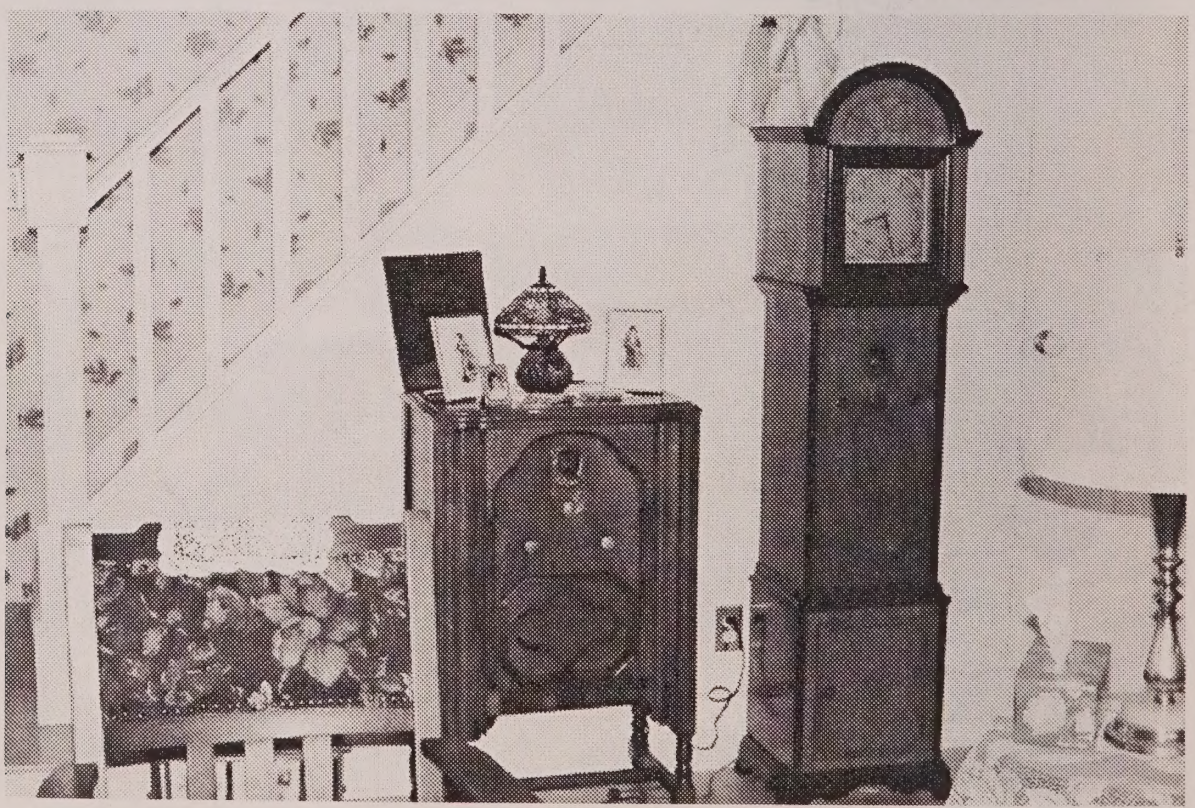
Object of Desire. A Zenith 829 owned and restored by Mark Toppo.

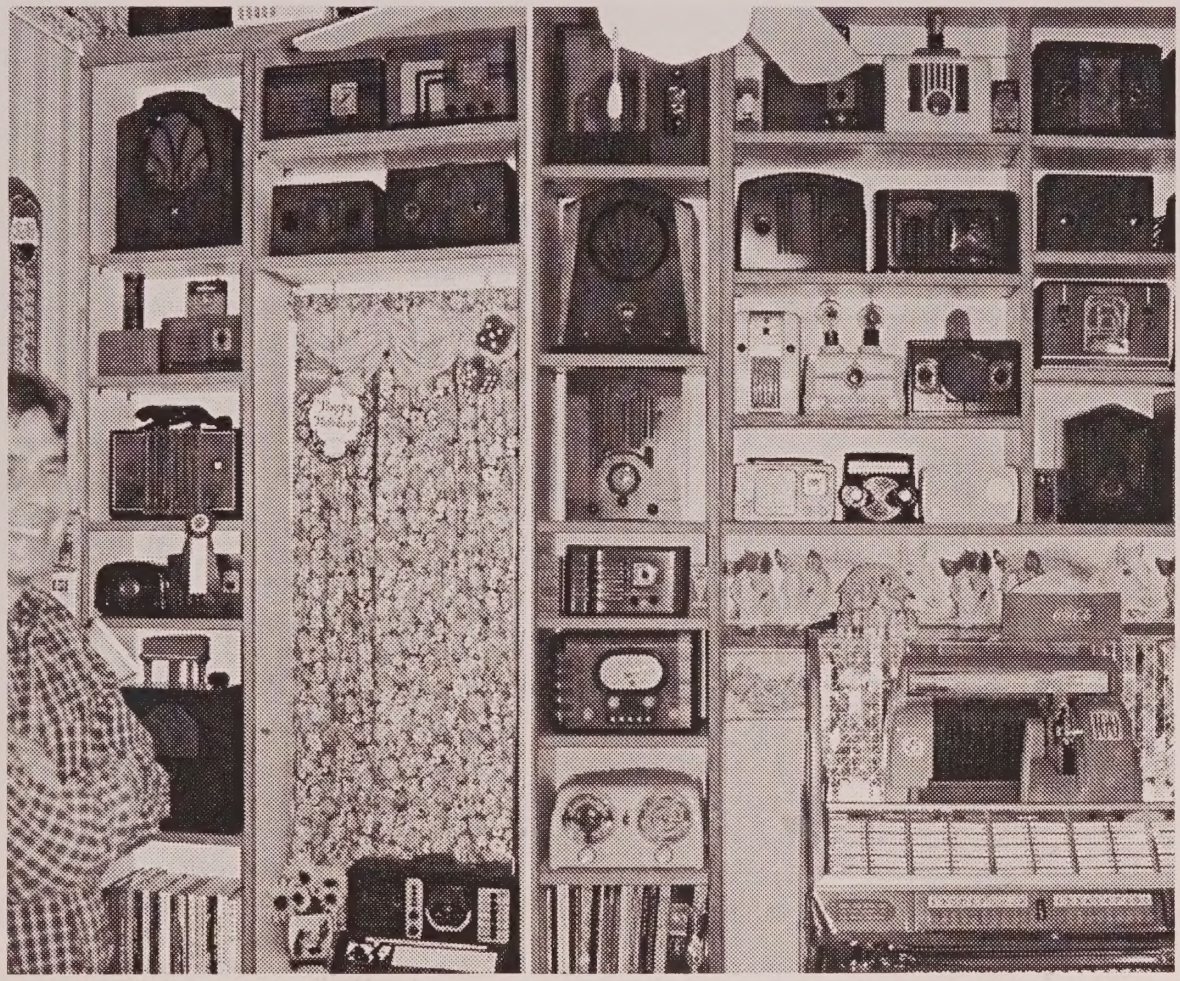
At right Mark gestures to the multitudes in benediction and provides a few of his valuable restoration and collecting tips.

Lower right, Jeff Thomas' meticulously restored A-K breadboard. Jeff has developed several interesting techniques to achieve that "like new" look.

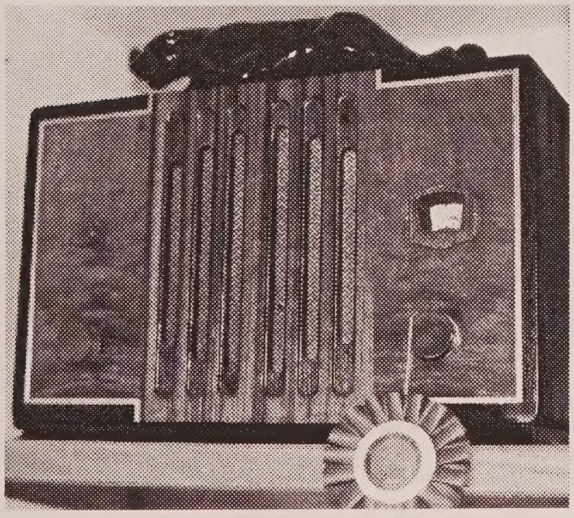

1
2
3

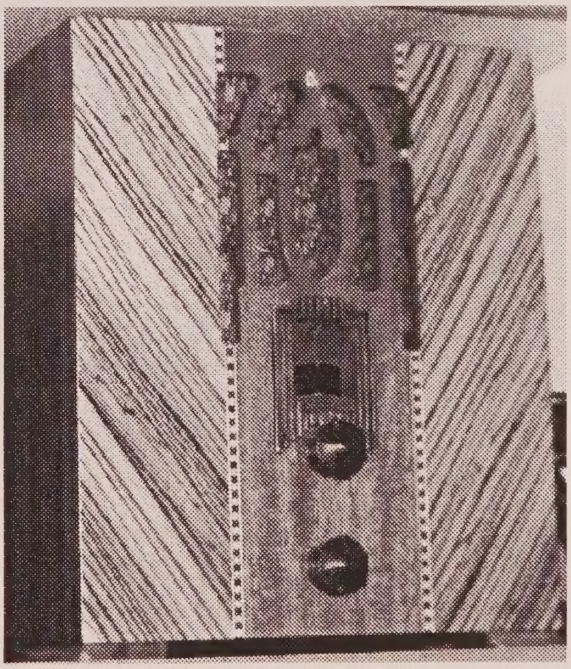
Ken and Debbie Krol hosted the December 2000 meeting at their home in the historic Willo neighborhood of central Phoenix. The theme was "Californinia Radios". The theme was overshadowed by the Krol house which provides the perfect setting for Ken and Debbie's radios and other antiques. Rarely do we see radios like the 1939 Zenith above so in tune with their surroundings.





Rick Mountjoy appears to be thrilled to be photographed in front of more of the Krol collection. Many of Ken's radios feature elaborate woodwork, even though they were not expensive radios in their day. Ken has done a magnificent job of restoration and has won awards for some of these sets.





Carl Roberts takes his turn at the California Radio show-and-tell table in the back yard. On display were a row of colorful Packard-Bell plastics.

Escutcheon of Clyde Watson's one of a kind console showing that it was won by the City and County of San Francisco on New Year's Day 1939. For more on this unique piece of California history see Clyde's article in the Summer 1990 issue of the Radio Club News.

Mark Toppo brought 3 radios from his large collection of California sets. This Peter Pan is a great example of the genre.

PATTERSON
PR-15

Breting
14

At left two more rare California sets, this time examples of communications receivers from the collection of Clyde Watson. On top is a Patterson PR-15, below is a Breting 14. Both manufacturers made radios and parts for other-branded California radios.

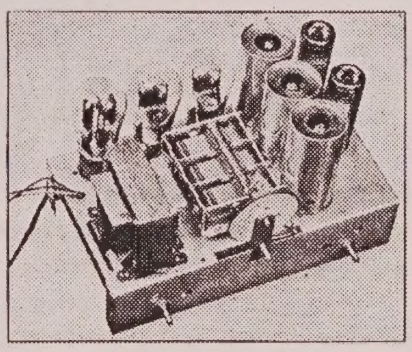
Right: an ad for Consolidated Radio, offering chassis that could be used "under your own brand name as a feature".

Below: a battery set with headphones labeled simply "Boy Scout".

IMPORTANT ANNOUNCEMENT

Consolidated Custom-Built Chassis

Ideal for your specially designed cabinet and priced so reasonably that you can use the chassis under your own brand name as a feature.



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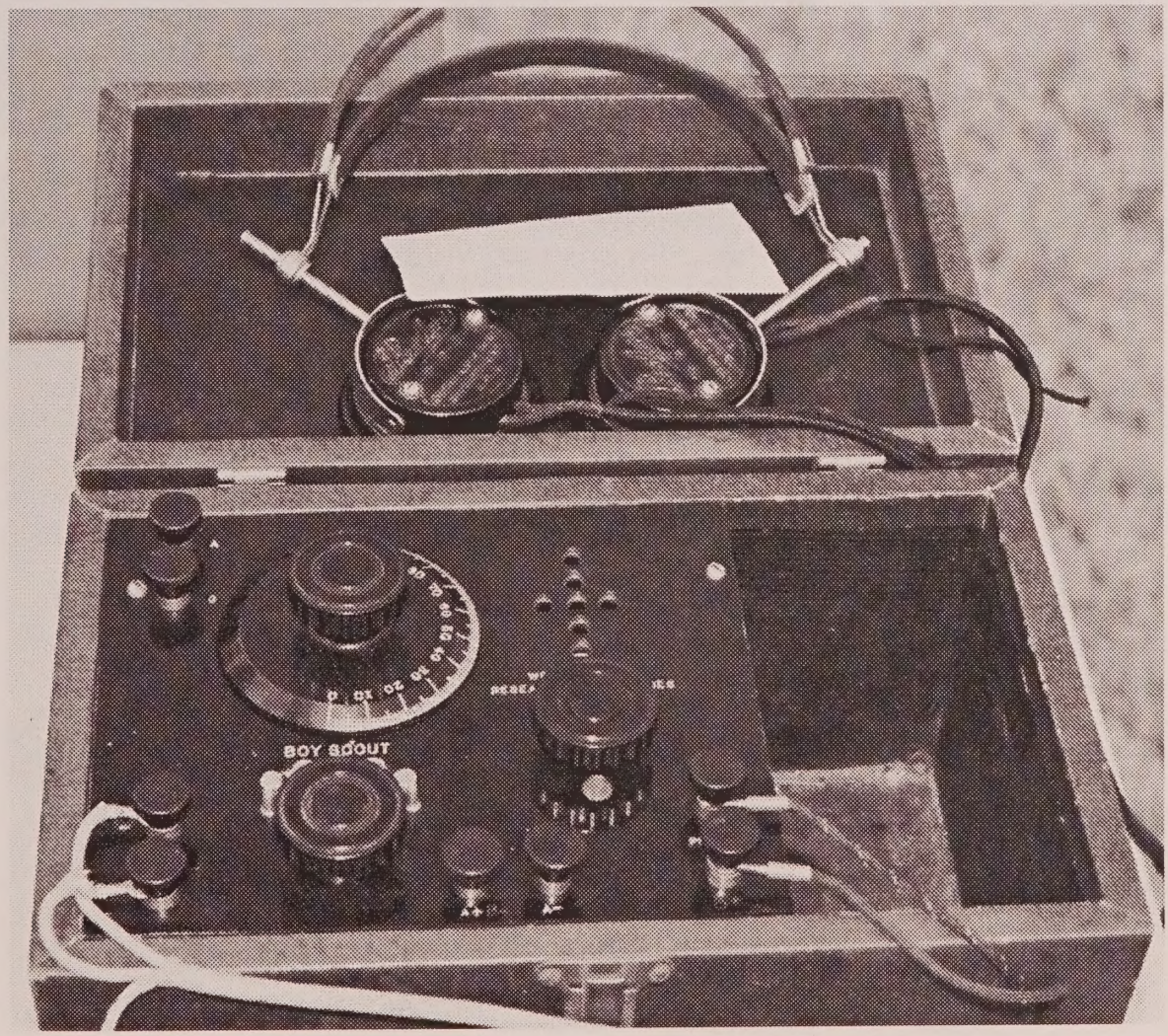
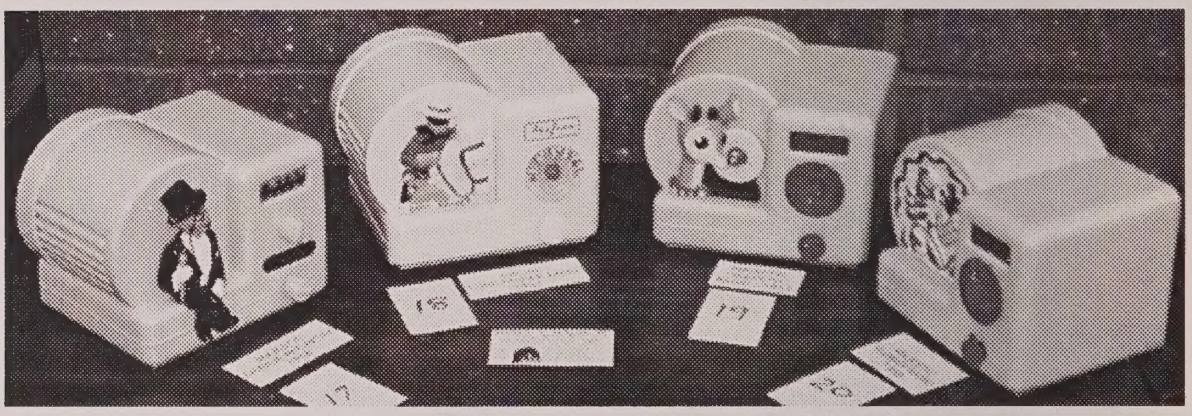


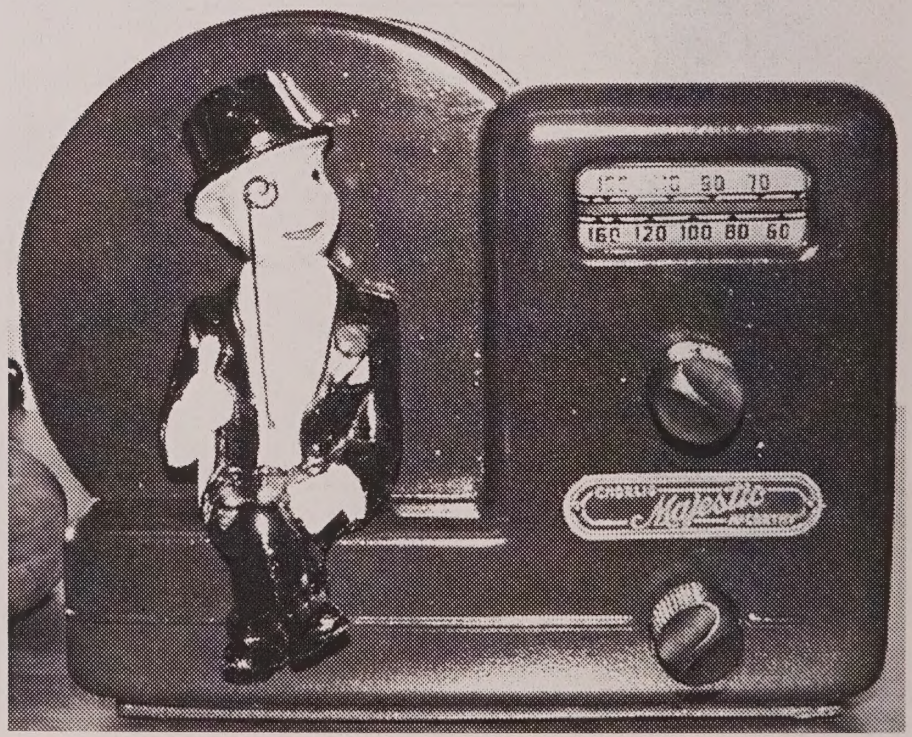
Radio Roundup 2001

Novelty and Pop Culture Radios

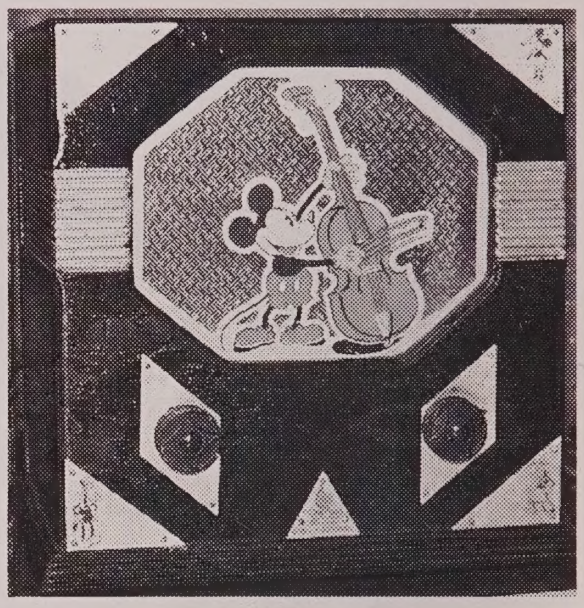
In February 2001 our popular Radio Roundup featured novelty and pop culture radios of all eras. Although Novelty Radios mean to many people the more recent transistor sets, novelty radios have been around in many forms since the early 1930s. The Roundup featured a broad selection of examples.



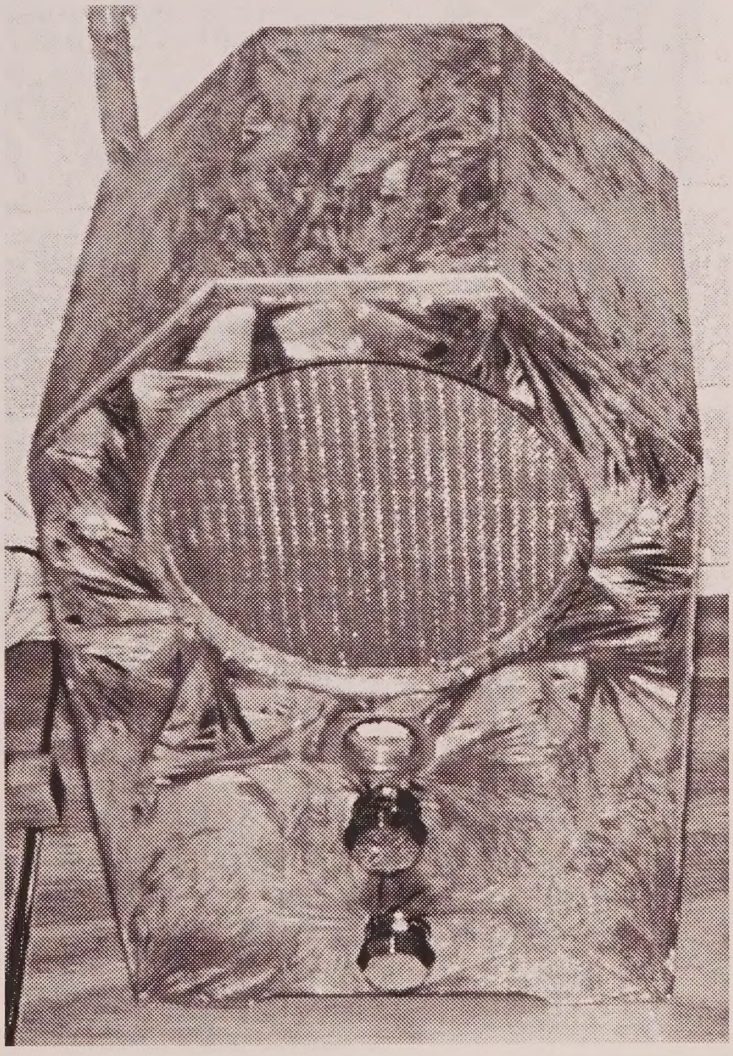
This set of radios based upon cartoons and radio characters is from the collection of Martin Bergan. They are based upon the design of the earlier Majestic Charlie McCarthy radio, below. This one was displayed by Clyde Watson.

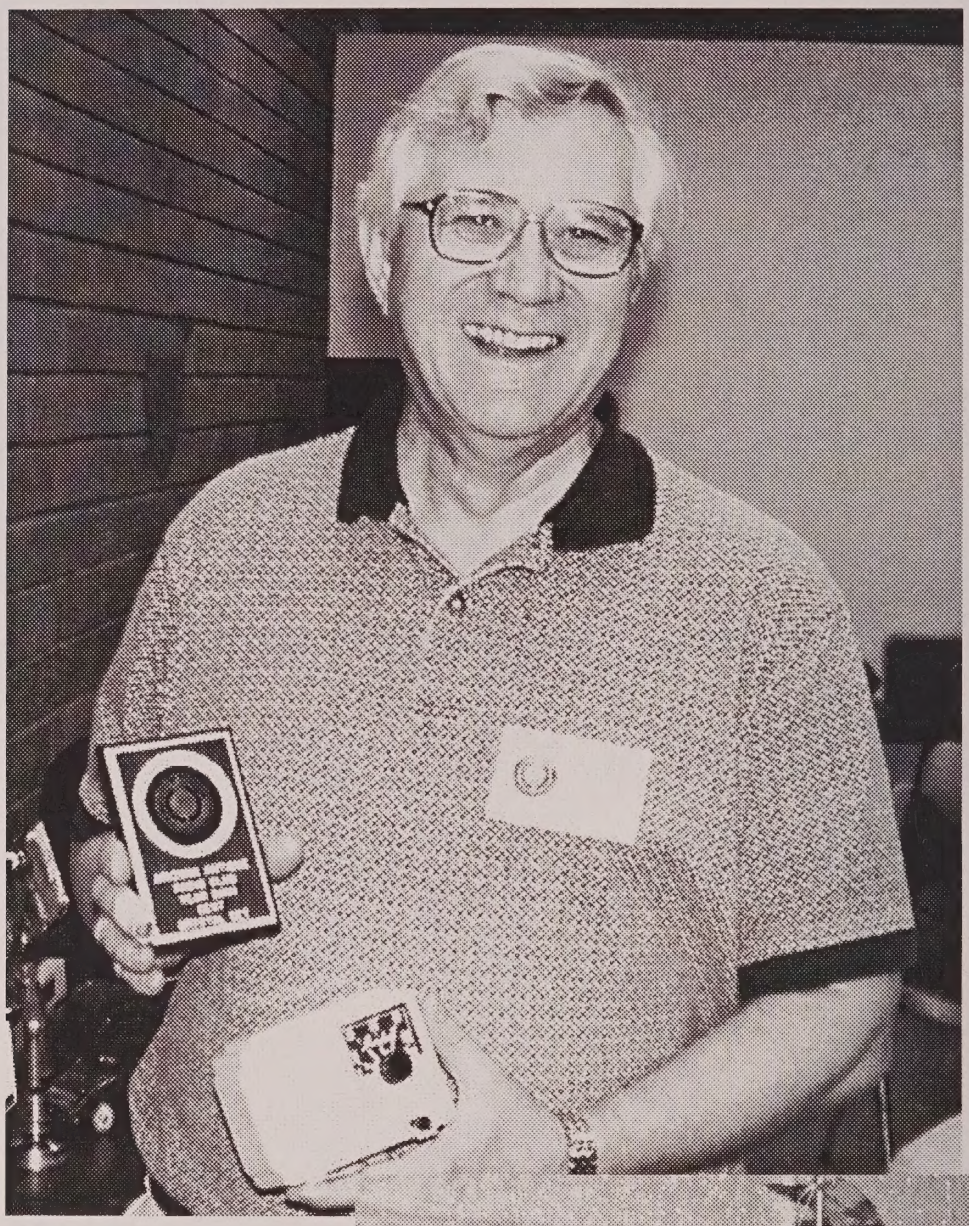


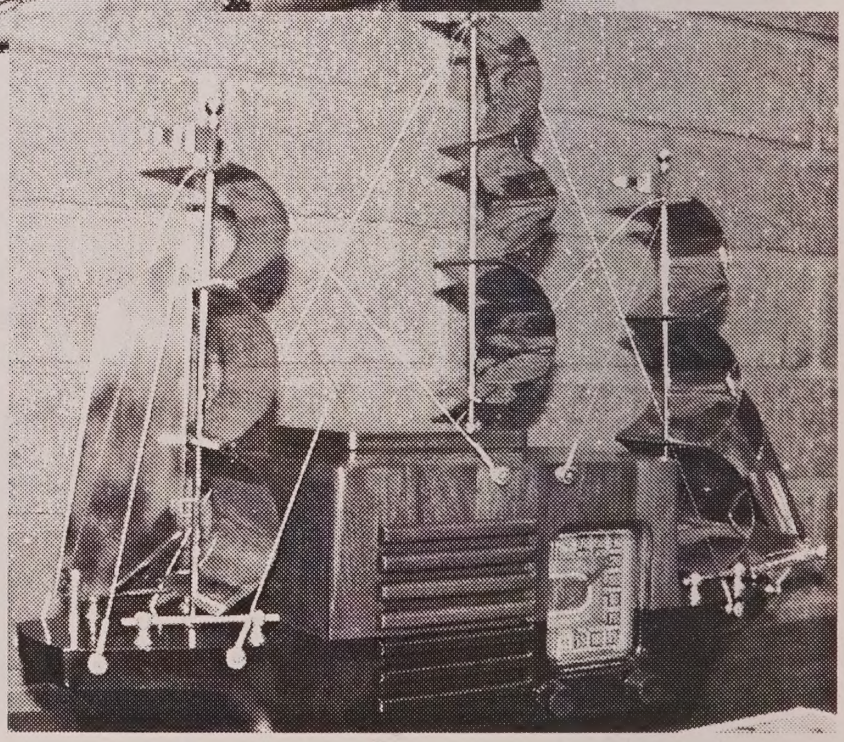
Two RCA radios that look like a row of books serve as bookends for a Colonial "New World" globe radio (Martin Bergan collection). Below, a Crosley "Pup" (George H. Fathauer)



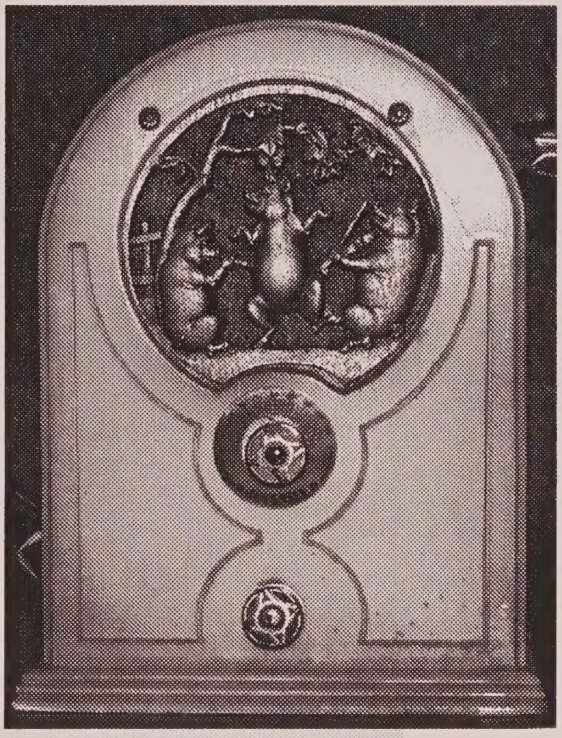
More novelties of various vintages. The value of the older novelty sets has always been very high due to their scarcity. Values for the newer transitor-type radios has fluctuated considerably over the years. One can only speculate on the future value of the McDonald's Large Order of Fries Radio in the grouping above.







The award for Best Tube Radio went to Martin Bergan for his somewhat bizarre Three Little Pigs radio.



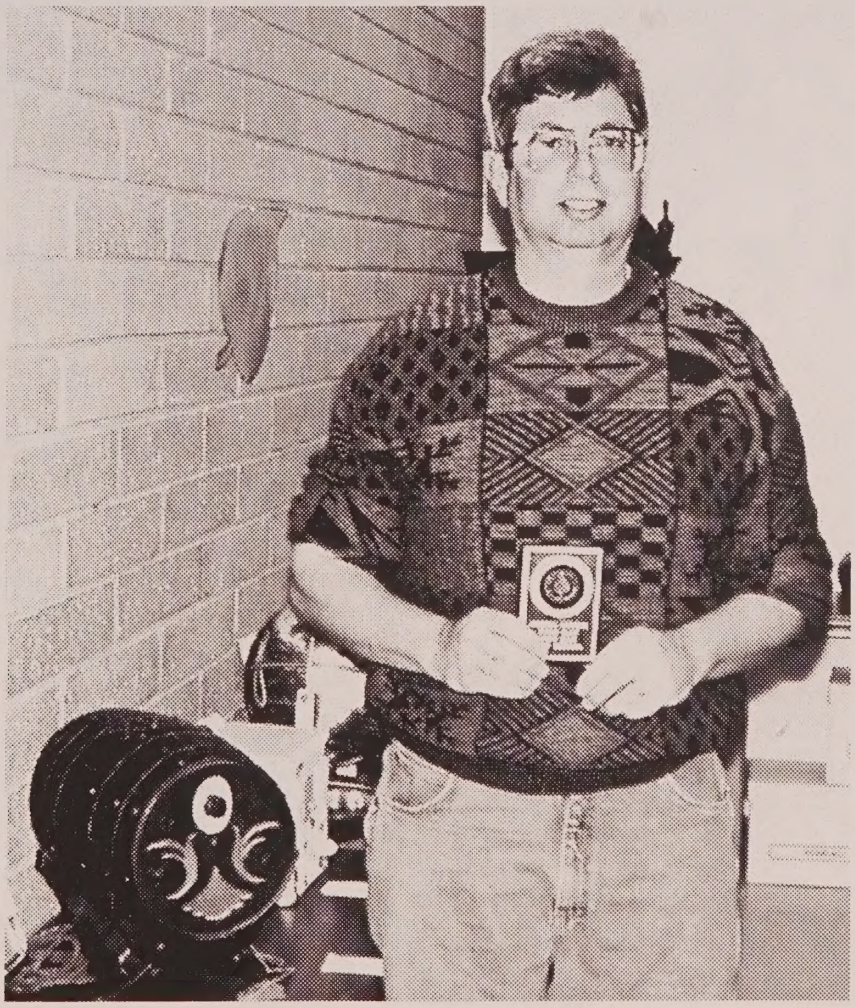
At left Larry Kenan won for Best Crystal Set with this British 1950 Ivalek catswhisker set in a case that made it look "like a real radio".

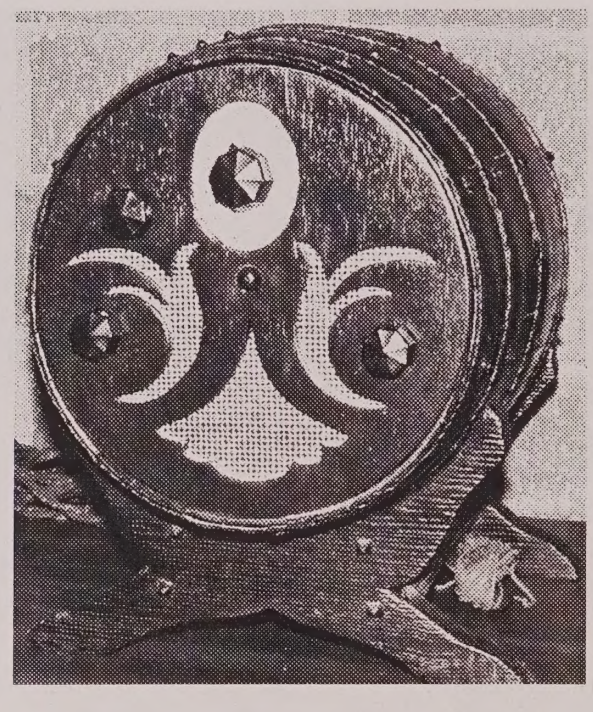
Larry also took the Best Restoration award for his Melody Cruiser radio which needed extensive work on its riggin'.

A tie which was not resolved in 3 run-off votes yielded a double award for Best Transistor Radio. Shirley Strapach won for her Pillsbury Doughboy clock radio which was displayed surrounded by an impressive collection of Doughboy articles. It's always amazing to learn what people collect.

Connie Cain was the other winner for her "Blabbermouth" radio, a white box with lips that move when the radio is turned on. This radio was a bit of a show-stopper, even for the antique radio sophisticates in the crowd.

Mark Toppo took the Most Unusual prize with his Farad Keg Radio.

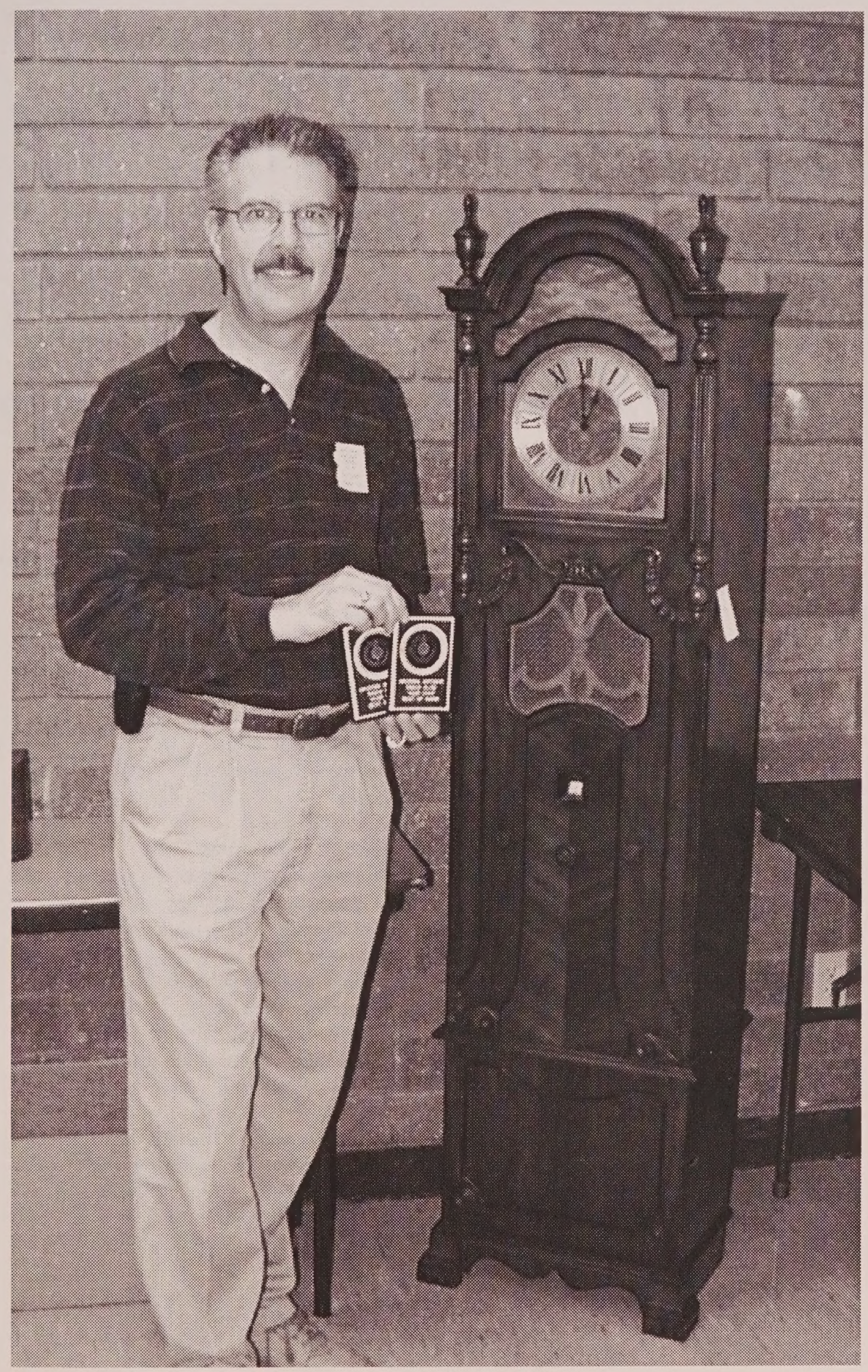




More views of the Farad Keg Radio, winner of the Most Unusual award for Mark Toppo.

Steve Smith won Best Story for his grandfather clock radio, which survived an eventful transport from Nebraska in perfect shape. Steve also deserves credit for bringing it to the Radio Roundup.

Steve added to his haul when the radio also took the Best of Show award.



Read what happened to these two men when I said:

You Can Write for the Radio Club News!

Your club's publication needs your contributions of articles, letters, photos and other materials of interest to members. Add a new dimension to your hobby by sharing your experiences, expertise, wisdom, common sense, opinions and observations with club members and other readers.

Here are a few ideas to get you going:

Collecting:
- Your first radio
- Great and impossible finds you have made
- Tips for making finds
- Tips for new collectors*
- Great finds that turned sour
- Tips to avoid making finds that turn sour
- Interviews or visits to club members

Experiences:
- How you got started in radio
- Experiences in radio's early days
- Early Arizona radio: stations, manufacturers, stores, personalities
- Interviews of radio pioneers
- Job experiences relating to radio

Technical:
- Cabinet restoration tips*
- Chassis repair tips*
- Great and impossible restorations
- Electronics for the beginning collector*
- Technical help in question and answer format*

History:
- History of a set, a company or a station
- Development of circuits, tubes or components
- History of a design trend, i.e. art deco
- Any aspect of radio in Arizona history especially wanted

Photos:
- Unusual sets
- Recent acquisitions
- Before and after shots of a restoration
- Collections or swap meets visited
- Interesting radio related places visited

Commentary:
- The state of the hobby
- Letters to the editor
- Comments about articles seen
- Comments about the Radio Club News
- Opinions about prices

Items marked * could be subjects for regular features, if you are willing to make a committment. Submissions can be typed or on computer disk (any format is OK), or emailed. Call or write the editor:

Bill Lettow (address on page 2)
lettow@yahoo.com